

## Reinstatement of *Orbeola* Mulsant & Rey, 1868 as a valid genus (Coleoptera: Dermestidae: Megatominae)

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**Taxonomy, reinstatement, new status, new combinations, new record, Coleoptera, Dermestidae, *Orbeola*, Palaearctic and Afrotropical Regions**

**Abstract.** The genus *Orbeola* Mulsant & Rey, 1868 from the Palaearctic and Afrotropical Regions is reinstated from its synonymy with *Phradonoma* Jacquelain du Val, 1859. The following combinations are newly proposed: *Orbeola hirsutulum* (Reiche in Mulsant & Rey, 1868) comb. nov. (from *Phradonoma*) as a type species; *Orbeola endroedyi* (Háva, 2003) comb. nov. (from *Paratrogoderma*); *Orbeola haemorrhoum* (Gerstäcker, 1871) comb. nov. (from *Paratrogoderma*); *Orbeola reunionica* (Háva & Poussetteau, 2019) comb. nov. (from *Paratrogoderma*). The species *Orbeola hirsutulum* (Reiche in Mulsant & Rey, 1868) is recorded from Oman for the first time.

### INTRODUCTION

Mulsant & Rey (1868) described the subgenus *Orbeola* in the genus *Trogoderma* with type species *Trogoderma (Orbeola) hirsutulum* Reiche in Mulsant & Rey, 1868. Dalla Torre (1911) mentioned the species only as *Trogoderma* without subgenus. Winkler (1926) and Mroczkowski (1968) mentioned the *Orbeola* as subgenus in genus *Phradonoma* Jacquelain du Val, 1859. Háva (2003a, 2007) mentioned the *Orbeola* as synonym for *Phradonoma*. In the present article is *Orbeola* reinstated as a valid, independent genus.

### MATERIAL AND METHODS

The size of the beetles or of their body parts can be useful in species recognition and thus, the following measurements were made:

total length (TL) - linear distance from anterior margin of pronotum to apex of elytra.  
elytral width (EW) - maximum linear transverse distance.

The material studied is deposited in the following collections:  
BMNH Natural History Museum, London, United Kingdom;  
HNHM Hungarian Natural History Museum Budapest, Hungary;  
JHAC Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy,  
Prague-West, Czech Republic;  
MNHN Museum National d'histoire Naturelle, Paris, France.

## RESULTS

### Genus *Orbeola* Mulsant & Rey, 1868 stat. nov.

*Trogoderma* subgenus *Orbeola* Mulsant & Rey, 1868: 134.

**Type species:** *Trogoderma (Orbeola) hirsutulum* Reiche in Mulsant & Rey, 1868: 134.

**Original description.** „Massue des antennes orbiculaire, comprimée, composee d'articles serrés (S.-G. *Orbeola*)“.

*Trogoderma hirsutula* (Reiche): „Ovalaire; d'un noir luisant; hérisse en dessus 'un duvet noir. Antennes ordinairement d'une flave roux, quelquefois nébuloses; à massue orbiculaire, comprimée. Pieds ordinairement d'un flave roux. Cuisses parfois obscures.“

„Obs. Les ♂ paraissent avoir les antennes et les pieds d'un roux pâle ou flavescent ou d'un flave roux : les ♀ ont parfois antennes nébuleuses et les cuisses obscures ou noirâtres.“

**Short redescription.** Male. Small and oval (Fig. 1). Body measurements (in mm): TL 1.7-2.0 EW 1.1-1.3. Black, brown or brown-reddish on dorsal surfaces. Eyes small, not overlapping lateral margin of head in dorsal view. Ocellus on frons present. Antennae (Fig. 2) composed of 10 antennomeres, antennal club of 3 antennomeres.

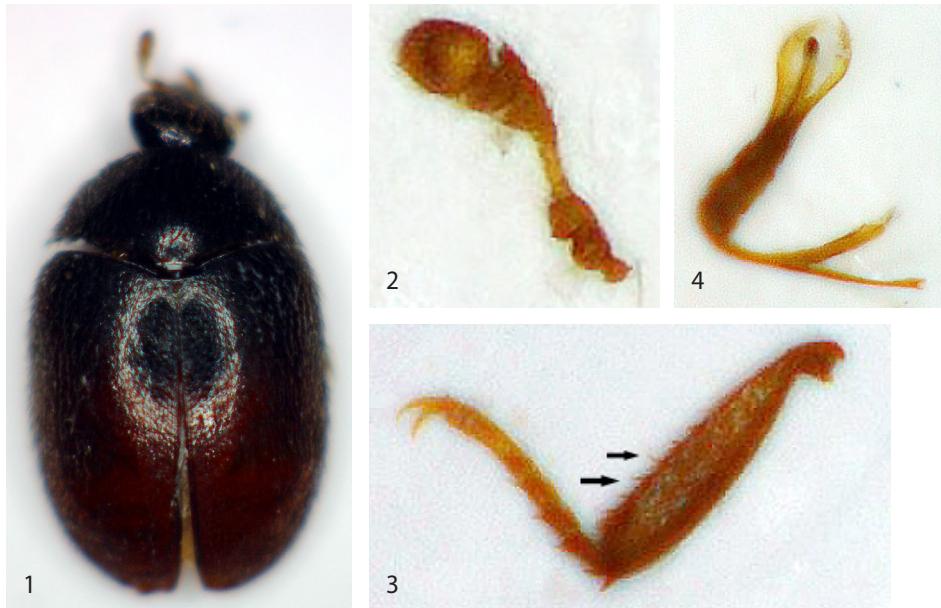
Legs with spines along shaft on tibiae (Fig. 3). Abdomen with 5 visible ventrites. First visible abdominal ventrite with distinct oblique discal striae. Pygidium black with long yellowish-light brown setation. Male genitalia: parameres and median lobe very long and narrow (Fig. 4).

Female. Externally similar to male, terminal antennomere is small as in male.

**Differential diagnosis.** According to 10-antennomered antennae and anterior tibiae with spines along shaft *Orbeola* is newly stated as valid genus and removed from the synonymy with *Phradonoma*. The genus *Orbeola* differs from similar genera by the characters mentioned in the following key:

- 1(6) anterior tibiae with spines along shaft
- 2(5) antennae with 11 antennomeres
- 3(4) antennae longly pectiniform; tibiae with long broad lateral carina ..... *Volvicornis* Háva & Kalík, 2004
- 4(3) antennae not pectiniform; tibiae without lateral carina ..... *Phradonoma* Jacquelin du Val, 1859
- 5(2) antennae with 10 antennomeres ..... *Orbeola* Mulsant & Rey, 1868
- 6(1) anterior tibiae without spines along shaft, antennae with 10 antennomeres ..... *Paratrogoderma* Scott, 1926

**Distribution.** The genus is known from Middle East and Afrotropical Region.



Figs. 1-4. *Orbeola hirsutulum* (Reiche in Mulsant & Rey, 1868): 1- habitus, dorsal aspect; 2- antenna; 3- anterior tibia (spines); 4- male genitalia.

#### SPECIES BELONGING TO GENUS *ORBEOLA*

##### ***Orbeola hirsutulum* (Reiche in Mulsant & Rey, 1868) comb. nov.**

*Trogoderma (Orbeola) hirsutulum* Reiche in Mulsant & Rey, 1868: 134.  
*Phradonoma hirsutulum*: Winkler, 1926: 679.

**Material examined:** 10 specimens from Israel, Syria, United Arab Emirates and Yemen, (JHAC); Oman mer., Al-Muohsavi, 16°53.00', 53°47.42', 9.3.2019, Orszulik lgt., 1 ♀, (JHAC). New to Oman.

**Distribution:** Israel, Saudi Arabia, Syria, Turkmenistan, United Arab Emirates, Yemen, Oman.

##### ***Orbeola endroedyi* (Háva, 2003) comb. nov.**

*Phradonoma endroedyi* Háva, 2003b: 33.  
*Paratrogoderma endroedyi*: Háva & Poussetereau, 2019: 56.

**Material examined:** Holotype, (HNHM) from Ghana, 1 spec. from Senegal, (BMNH), 1 spec., from Burkina Faso, (JHAC).

**Distribution:** Burkina Faso, Ghana, Senegal.

### ***Orbeola haemorrhoum* (Gerstäcker, 1871) comb. nov.**

*Trogoderma haemorrhoum* Gerstäcker, 1871: 45.

*Phradonoma haemorrhoum*: Kalík, 1965: 219.

*Paratrogoderma haemorrhoum*: Háva, 2008: 45.

**Material examined:** 25 specimens from Kenya and Eritrea, (JHAC).

**Distribution:** Congo, Kenya, Eritrea, Tanzania: Zanzibar, Uganda.

### ***Orbeola reunionica* (Háva & Poussereau, 2019) comb. nov.**

*Paratrogoderma reunionica* Háva & Poussereau, 2019: 56.

**Material examined:** Holotype, (MNHN) and 1 Paratype, (JHAC) from Reunion.

**Distribution:** Reunion.

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